WHAT IS CLAIMED IS:

1. A brake control apparatus comprising:

an engine braking torque computing section configured and arranged to compute an engine braking torque of an engine that drives a first wheel; and

a generator braking torque controlling section configured and arranged to control an electrical braking torque of a generator that is configured and arranged to electrically brake a second wheel so that a first to second target wheel braking torque distribution approaches an ideal braking torque distribution between the first and second wheels based on the engine braking torque computed by the engine braking torque computing section, when the engine applies the engine braking torque to the first wheel.

2. The brake control apparatus as recited in claim 1, further comprising

a braking torque distributing section configured and arranged to distribute the engine braking torque computed by the engine braking torque computing section between a first wheel target braking torque for the first wheel and a second wheel target braking torque for the second wheel.

3. The brake control apparatus as recited claim 2, further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque of the first wheel driven by the engine approximately matches the first wheel target braking torque, and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque so that a braking torque of the second wheel by the generator approximately matches the second wheel target braking torque.

4. The brake control apparatus as recited claim 3, further comprising

a motor drive torque controlling section configured and arranged to drive a motor that supplements driving of the engine to reduce the engine braking torque of the engine.

5. The brake control apparatus as recited claim 4, wherein

the motor drive torque controlling section is further configured and arranged to supply electrical power to the motor obtained by electrically braking the generator.

6. The brake control apparatus as recited in claim 5, further comprising

a throttle opening determining section configured and arranged to determine an accelerator position opening degree, and

the engine braking torque computing section being further configured and arranged to control the braking torque of the first wheel driven by the engine to approximately match the first wheel target braking torque by selectively driving of the motor to supplement driving of the engine based on the accelerator position opening degree detected by the throttle opening determining section.

7. The brake control apparatus as recited in claim 1, further comprising

an engine speed detecting section configured and arranged to detect an engine speed of the engine; and

a throttle opening determining section configured and arranged to determine an accelerator position opening degree,

the engine braking torque computing section being further configured and arranged to compute the engine braking torque based on the engine speed detected by the engine speed detecting section and based on the accelerator position opening degree detected by the throttle opening determining section.

8. The brake control apparatus as recited in claim 1, further comprising

a low road surface friction state detecting section configured and arranged to detect whether a friction state between the first and second wheels and a road surface is a low friction state; and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque from the generator, when the low road surface friction state detecting section detects that the friction state between the first and second wheels and the road surface is in the low friction state, so that the first to second wheel target braking torque distribution from the engine braking torque and the electrical

braking is made to approach the ideal braking torque distribution between the first and second wheels.

9. The brake control apparatus as recited in claim 8, wherein

the generator braking torque controlling section is further configured and arranged to control the electrical braking torque from the generator to approximately maximize regenerative braking, when the low road surface friction state detecting section detects that the friction state between the wheels and the road surface is not in the low friction state; and further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque the engine braking from the engine is reduced in relation to the regenerative braking by the generator.

10. The brake control apparatus as recited in claim 8, further comprising

a braking torque distributing section configured and arranged to distribute the engine braking torque computed by the engine braking torque computing section between a first wheel target braking torque for the first wheel and a second wheel target braking torque for the second wheel.

11. The brake control apparatus as recited claim 10, further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque of the first wheel driven by the engine approximately matches the first wheel target braking torque, and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque so that a braking torque of the second wheel by the generator approximately matches the second wheel target braking torque.

12. The brake control apparatus as recited claim 11, further comprising

a motor drive torque controlling section configured and arranged to drive a motor that supplements driving of the engine to reduce the engine braking torque of the engine when the low road surface friction state detecting section detects that the friction state between the wheels and the road surface is in the low friction state.

13. The brake control apparatus as recited claim 12, wherein

the motor drive torque controlling section is further configured and arranged to supply electrical power to the motor obtained by electrically braking the generator.

14. The brake control apparatus as recited in claim 13, further comprising

a throttle opening determining section configured and arranged to determine an accelerator position opening degree, and

the engine braking torque computing section being further configured and arranged to control the braking torque of the first wheel driven by the engine to approximately match the first wheel target braking torque by selectively driving of the motor to supplement driving of the engine based on the accelerator position opening degree detected by the throttle opening determining section.

15. A brake control apparatus comprising:

an engine configured and arranged to drive a first wheel and apply a first wheel engine braking torque to the first wheel;

a generator configured and arranged to apply an electrical braking torque to a second wheel; and

a generator braking torque controlling section configured and arranged to control the electrical braking torque of the generator so that a first to second wheel braking torque distribution approaches an ideal braking torque distribution between the first and second wheels, when the engine applies the engine braking torque to the first wheel.

16. The brake control apparatus as recited in claim 15, further comprising

an engine braking torque computing section configured and arranged to compute an engine braking torque of the engine that drives the first wheel; and

a braking torque distributing section configured and arranged to distribute the engine braking torque computed by the engine braking torque computing section between a first wheel target braking torque for the first wheel and a second wheel target braking torque for the second wheel.

17. The brake control apparatus as recited claim 16, further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque of the first wheel driven by the engine approximately matches the first wheel target braking torque, and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque so that a braking torque of the second wheel by the generator approximately matches the second wheel target braking torque.

18. The brake control apparatus as recited claim 17, further comprising

a motor configured and arranged to drive the engine; and

a motor drive torque controlling section configured and arranged to drive the motor that supplements driving of the engine to reduce the engine braking torque of the engine.

19. The brake control apparatus as recited claim 18, wherein

the motor drive torque controlling section is further configured and arranged to supply electrical power to the motor obtained by electrically braking the generator.

20. The brake control apparatus as recited in claim 19, further comprising

a throttle opening determining section configured and arranged to determine an accelerator position opening degree, and

the engine braking torque computing section being further configured and arranged to control the braking torque of the first wheel driven by the engine to approximately match the first wheel target braking torque by selectively driving of the motor to supplement driving of the engine based on the accelerator position opening degree detected by the throttle opening determining section..

21. The brake control apparatus as recited in claim 15, further comprising

an engine speed detecting section configured and arranged to detect an engine speed of the engine; and

a throttle opening determining section configured and arranged to determine an accelerator position opening degree,

the engine braking torque computing section being further configured and arranged to compute the engine braking torque based on the engine speed detected by the engine speed detecting section and based on the accelerator position opening degree detected by the throttle opening determining section.

22. The brake control apparatus as recited in claim 15, further comprising

a low road surface friction state detecting section configured and arranged to detect whether a friction state between the first and second wheels and a road surface is a low friction state; and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque from the generator, when the low road surface friction state detecting section detects that the friction state between the first and second wheels and the road surface is in the low friction state, so that the first to second wheel target braking torque distribution from the engine braking torque and the electrical braking is made to approach the ideal braking torque distribution between the first and second wheels.

23. The brake control apparatus as recited in claim 22, wherein

the generator braking torque controlling section is further configured and arranged to control the electrical braking torque from the generator to approximately maximize regenerative braking, when the low road surface friction state detecting section detects that the friction state between the wheels and the road surface is not in the low friction state; and further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque the engine braking from the engine is reduced in relation to the regenerative braking by the generator.

24. The brake control apparatus as recited in claim 22, further comprising

a braking torque distributing section configured and arranged to distribute the engine braking torque computed by the engine braking torque computing section between a first wheel target braking torque for the first wheel and a second wheel target braking torque for the second wheel.

25. The brake control apparatus as recited claim 24, further comprising

an engine braking torque controlling section configured and arranged to control the engine braking torque so that a braking torque of the first wheel driven by the engine approximately matches the first wheel target braking torque, and

the generator braking torque controlling section being further configured and arranged to control the electrical braking torque so that a braking torque of the second wheel by the generator approximately matches the second wheel target braking torque.

26. The brake control apparatus as recited claim 25, further comprising

a motor configured and arranged to drive the engine; and

a motor drive torque controlling section configured and arranged to drive the motor that supplements driving of the engine to reduce the engine braking torque of the engine when the low road surface friction state detecting section detects that the friction state between the wheels and the road surface is in the low friction state.

27. The brake control apparatus as recited claim 26, wherein

the motor drive torque controlling section is further configured and arranged to supply electrical power to the motor obtained by electrically braking the generator.

28. The brake control apparatus as recited in claim 27, further comprising

a throttle opening determining section configured and arranged to determine an accelerator position opening degree, and

the engine braking torque computing section being further configured and arranged to control the braking torque of the first wheel driven by the engine to approximately match the first wheel target braking torque by selectively driving of the motor to supplement driving of the engine based on the accelerator position opening degree detected by the throttle opening determining section.

29. A brake control apparatus comprising:

engine braking torque computing means for computing an engine braking torque of an engine that drives a first wheel; and

generator braking torque controlling computing means for controlling an electrical braking torque of a generator that is configured and arranged to electrically brake a second wheel so that a first to second wheel braking torque distribution approaches an ideal braking torque distribution between the first and second wheels based on the engine braking torque computed by the engine braking torque computing means, when the engine applies the engine braking torque to the first wheel.

30. A method of controlling vehicle braking comprising:

computing section an engine braking torque of an engine that drives a first wheel; and

controlling an electrical braking torque of a generator that is configured and arranged to electrically brake a second wheel so that a first to second wheel braking torque distribution approaches an ideal braking torque distribution between the first and second wheels based on the engine braking torque computed by the engine braking torque computing section, when the engine applies the engine braking torque to the first wheel.